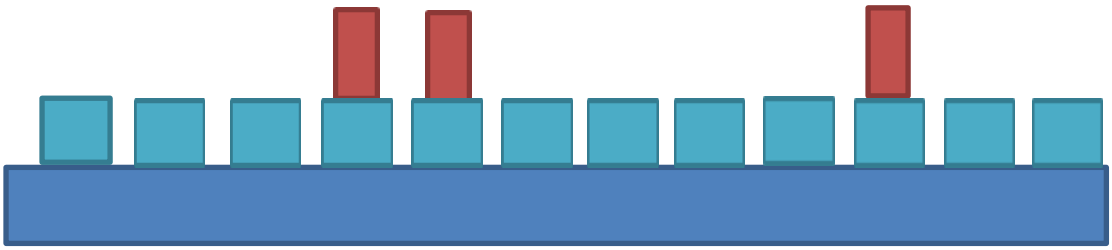
# Find the free place method ( C# )

We have a piece magazine with “n” positions and some occupied positions (12 positions and 3 occupied positions, in the picture below).

The magazine can be:

- Linear (like in the picture below)
- Rotary (like a circle, where last position is near position 0)

We need to return the first available position for a defined workpiece size.



```
/// <summary>
/// Function to return the free place in the magazine level
/// </summary>
/// <param name="places">Array of bools of dimension "n". True means occupied position, false means available</param>
/// <param name="isRotary">Flag whether the level is rotary (last position is neighbour of the first one)</param>
/// <param name="neededPlaces">Number of places needed</param>
/// <returns>Index of first position found (zero based) or -1 if no position is found</returns>
public static int FindFreePlace(bool[] places, bool isRotary, int neededPlaces)
{
        // Insert the code
}
```

Example, with the configuration of the picture above:

- isRotary = false , neededPlaces = 6 , returns -1
- isRorary = false , neededPlaces = 4 , returns  5
- isRotary = false , neededPlaces = 5 , returns  -1
- isRotary = true , needed Places = 5 , returns 10

**We consider as a bonus:**

- A simple UI to select the occupied positions and test the code.
- Unit tests for automated testing.